

COMPREHENSIVE VALIDATION PACKAGE

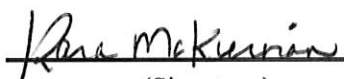
ATL Applications

INVENTORY SHEET

WORK ORDER # 0908457A

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b. Target Compound Raw Data		
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-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
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Completed by:



(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

09/17/09

(Date)

WORK ORDER #: 0908457A

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	BILL TO:	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	P.O. #	16512
FAX:	781-247-4305	PROJECT #	16512
DATE RECEIVED:	08/21/2009	CONTACT:	Ausha Scott
DATE COMPLETED:	09/16/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	99911	ATL Applications
01AA	99911 Lab Duplicate	ATL Applications
02A	99912	ATL Applications
02AA	99912 Lab Duplicate	ATL Applications
03A	99913	ATL Applications
04A	99914	ATL Applications
05A	99915	ATL Applications
06A	99916	ATL Applications
07A	100002	ATL Applications
08A	100003	ATL Applications
09A	100004	ATL Applications
10A	100005	ATL Applications
11A	100006	ATL Applications
12A	100516	ATL Applications
13A	100517	ATL Applications
14A	100518	ATL Applications
15A	100519	ATL Applications

Continued on next page

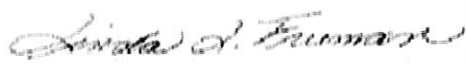
WORK ORDER #: 0908457A

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	BILL TO:	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	P.O. #	16512
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DATE COMPLETED:	09/16/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
16A	100520	ATL Applications
17A	100521	ATL Applications
18A	100850	ATL Applications
19A	100851	ATL Applications
20A	100852	ATL Applications
21A	Method Blank	ATL Applications
21B	Method Blank	ATL Applications
22A	CCV	ATL Applications

CERTIFIED BY:



Laboratory Director

DATE: 09/16/09

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Nitrogen Dioxide by Radiello 166
Environmental Health & Engineering, Inc.
Workorder# 0908457A**

Twenty Radiello 166 (NO₂) samples were received on August 21, 2009. The procedure involves extraction of nitrite from reaction of NO₂ with triethanolamine. Absorbance of nitrite is then measured at 537 nm using a spectrophotometer. Results are reported in uG and uG/m³.

Sampling rate of 141 mL/min was provided by the manufacturer.

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4±2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Sample collection dates were not provided on the Chain of Custody for all samples. The client was contacted and dates were provided.

Analytical Notes

Results were calculated based on 25 deg C without temperature correction. The actual exposure time was used to calculate sample concentrations and reporting limits.

An exposure time of 22,000 minutes was used for the QC samples and samples 99916 and 100521.

All media used for the sampling were supplied by the client. Blank subtraction was not performed on the sample results since the media used for Method Blanks may be from a different lot than the media used for the samples.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Sample Results and Raw Data

AIR TOXICS LTD.

ATL Application # 61 for RAD 166 (Nitrogen Dioxide)

Spectrophotometer

Field	Lab	Collection Date	Analysis Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Sample ID.	Sample ID.	Date	Date					
99911	0908457A-01A	8/18/2009	8/24/2009	1.00	0.32	0.20	27	17
99911 Lab Duplicate	0908457A-01AA	8/18/2009	8/24/2009	1.00	0.32	0.20	27	17
99912	0908457A-02A	8/18/2009	8/24/2009	1.00	0.32	0.20	20	13
99912 Lab Duplicate	0908457A-02AA	8/18/2009	8/24/2009	1.00	0.32	0.20	20	13
99913	0908457A-03A	8/18/2009	8/24/2009	1.00	0.32	0.20	22	14
99914	0908457A-04A	8/18/2009	8/24/2009	1.00	0.32	0.20	22	14
99915	0908457A-05A	8/18/2009	8/24/2009	1.00	0.32	0.20	5.2	3.3
99916	0908457A-06A	8/18/2009	8/24/2009	1.00	0.32	0.20	ND	ND
100002	0908457A-07A	8/19/2009	8/24/2009	1.00	0.32	0.20	5.8	3.6
100003	0908457A-08A	8/19/2009	8/24/2009	1.00	0.32	0.20	5.9	3.7
100004	0908457A-09A	8/19/2009	8/24/2009	1.00	0.32	0.20	7.3	4.5
100005	0908457A-10A	8/19/2009	8/24/2009	1.00	0.32	0.20	4.2	2.6
100006	0908457A-11A	8/19/2009	8/24/2009	1.00	0.32	0.20	6.4	4.0
100516	0908457A-12A	8/18/2009	8/24/2009	1.00	0.32	0.22	11	7.1
100517	0908457A-13A	8/18/2009	8/24/2009	1.00	0.32	0.22	10	6.9
100518	0908457A-14A	8/18/2009	8/24/2009	1.00	0.32	0.22	1.7	1.1
100519	0908457A-15A	8/18/2009	8/24/2009	1.00	0.32	0.22	8.7	5.8
100520	0908457A-16A	8/18/2009	8/24/2009	1.00	0.32	0.22	7.4	4.9
100521	0908457A-17A	8/18/2009	8/24/2009	1.00	0.32	0.20	ND	ND
100850	0908457A-18A	8/18/2009	8/24/2009	1.00	0.32	0.27	1.5	1.3
100851	0908457A-19A	8/18/2009	8/24/2009	1.00	0.32	0.27	1.5	1.2
100852	0908457A-20A	8/18/2009	8/24/2009	1.00	0.32	0.27	2.3	1.9
Method Blank	0908457A-21A	NA	8/24/2009	1.00	0.32	0.20	ND	ND
Method Blank	0908457A-21B	NA	8/24/2009	1.00	0.32	0.20	ND	ND
CCV	0908457A-22A	NA	8/24/2009	1.00	0.32	0.20	%Rec 103	

COMMENTS: 1. NA=Not Applicable

2. ND=Not Detected

3. Exposure time of 21498 minutes was assumed for the QC samples and samples 99916 and 100521.

Nitrogen Dioxide Radiello Calculation Worksheet

Workorder #: **0908457A**
 Sampling Rate (mg/(ppb*min)) **0.141** typically 0.96 for NO2
 Sampling T (deg C) **25** typically 25
 Volume (ml) **5** typically 5 for NO2
 Date of Analysis: **8/24/2009**

1000ng/1ug

(Abs-Y-int)/DF
 Slope
 Conc (ug) x 1000
 Q x Duration

ppbx mw
24.45

Low Point/DF

LabSampleID	Client	Date of Collection	Abbs	Duration (min)	DF	Conc (ug) (for 0.5ml Aliquot)	Conc (ug) in full 5 ml of sample	Conc (ppb)	Conc (ug/m3)	RL(ug) for 0.5 ml aliquot
01A	99911	8/18/2009	0.631	21145	1.00	2.71651095	27.1651095	9.111	17.142	0.033
01AA	99911 Lab Duplicate	8/18/2009	0.630	21145	1.00	2.712130372	27.12130372	9.097	17.114	0.033
02A	99912	8/18/2009	0.473	21145	1.00	2.024379498	20.24379498	6.790	12.775	0.033
02AA	99912 Lab Duplicate	8/18/2009	0.474	21145	1.00	2.028760076	20.28760076	6.805	12.802	0.033
03A	99913	8/18/2009	0.505	21145	1.00	2.16455802	21.6455802	7.260	13.659	0.033
04A	99914	8/18/2009	0.516	21145	1.00	2.212744387	22.12744387	7.422	13.963	0.033
05A	99915	8/18/2009	0.129	21145	1.00	0.517460385	5.174603852	1.736	3.265	0.033
06A	99916	8/18/2009	0.004	21498	1.00	-0.030111967	-0.301119667	-0.099	-0.187	0.033
07A	100002	8/19/2009	0.143	21498	1.00	0.578788489	5.787884886	1.909	3.592	0.033
08A	100003	8/19/2009	0.146	21498	1.00	0.591930225	5.91930225	1.953	3.674	0.033
09A	100004	8/19/2009	0.178	21498	1.00	0.732108747	7.321087471	2.415	4.544	0.033
10A	100005	8/19/2009	0.107	21498	1.00	0.421087651	4.210876512	1.389	2.614	0.033
11A	100006	8/19/2009	0.158	21498	1.00	0.644497171	6.444971708	2.126	4.000	0.033
12A	100016	8/18/2009	0.254	20125	1.00	1.065032737	10.65032737	3.753	7.061	0.033
13A	100517	8/18/2009	0.249	20125	1.00	1.043129843	10.43129843	3.676	6.916	0.033
14A	100518	8/18/2009	0.049	20125	1.00	0.16701408	1.670140799	0.589	1.107	0.033
15A	100519	8/18/2009	0.210	20125	1.00	0.872287269	8.722872692	3.074	5.783	0.033
16A	100520	8/18/2009	0.180	20125	1.00	0.740869905	7.408699047	2.611	4.912	0.033
17A	100521	8/18/2009	0.004	21498	1.00	-0.030111967	-0.301119667	-0.099	-0.187	0.033
18A	100850	8/18/2009	0.045	15840	1.00	0.149491765	1.494917647	0.669	1.259	0.033
19A	100851	8/18/2009	0.044	15840	1.00	0.145111186	1.451111859	0.650	1.222	0.033
20A	100852	8/18/2009	0.063	15840	1.00	0.228342183	2.283421834	1.022	1.923	0.033
21A	Method Blank	NA	0.008	21498	1.00	-0.012589651	-0.125896515	-0.042	-0.078	0.033
21B	Method Blank	NA	0.006	21498	1.00	-0.021350809	-0.213508091	-0.070	-0.133	0.033
22A	Method Blank	NA	0.774	21498	1.00	3.342933721	33.42933721	11.028	20.749	0.033

QC Duration
 21498
 CCV Spike Amt ug
 per 0.5 ml
 3.25

1000ng/1ug

$\frac{RL(\mu g) \times 5 (mL)}{0.5 mL}$ $\frac{RL (\mu g) \times 1000}{Q \times Duration}$

ppbx mw
24.45

Calibration Data

Calibration Date
8/24/2009 Linear Regression

0.5 mL
Aliquot of Cal
STD

RL (ug) in full 5 mL of
sample

RL (ppb)

RL (ug/m3)

Result (ug)

Result (ug/m3)

%Rec

ug/mL of
NO2

ug of NO2

absorbance

Slope
Y-int
R2

0.228280335
0.01087397
0.999588602

0.325	0.109	0.205	27.2	17.1	ND	0	0	0	
0.325	0.109	0.205	27.1	17.1	5.8	0.065	0.0325	0.011	
0.325	0.109	0.205	20.2	12.8	5.9	0.325	0.1625	0.042	
0.325	0.109	0.205	20.3	12.8	7.3	1.3	0.65	0.162	
0.325	0.109	0.205	21.6	13.7	4.2	6.5	3.25	0.774	
0.325	0.109	0.205	22.1	14.0	6.4	13	6.5	1.484	
0.325	0.109	0.205	5.2	3.3	ND				
0.325	0.107	0.202	5.8	3.6					
0.325	0.107	0.202	5.9	3.7					
0.325	0.107	0.202	7.3	4.5					
0.325	0.107	0.202	4.2	2.6					
0.325	0.107	0.202	6.4	4.0					
0.325	0.115	0.215	10.7	7.1					
0.325	0.115	0.215	10.4	6.9					
0.325	0.115	0.215	1.7	1.1					
0.325	0.115	0.215	8.7	5.8					
0.325	0.115	0.215	7.4	4.9					
0.325	0.107	0.202	ND	ND					
0.325	0.146	0.274	15	1.3					
0.325	0.146	0.274	15	1.2					
0.325	0.146	0.274	2.3	1.9					
0.325	0.107	0.202	ND	ND					
0.325	0.107	0.202	33.4	20.7	%Rec				
0.325	0.107	0.202			103				

QC Results and Raw Data

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

Work Order: 0908457A/B

Date: 8/24/09
Analyst: A. Toyama

Method: Rad 166
Wavelength: 537
Prep. Notes:

Standard ID	Concentration	ABS
1858-17	0.065	0.011
	0.325	0.042
	1.3	0.162
	6.5	0.774
	13	1.484

$r = 0.999586$
 $m = 0.22828$
 $b = 0.010833$

Fraction	Dilution	ABS	Sample ID	Sample Volume
01A	1.00	0.031	99911	50 μ l
02A		0.473	12	
03A		0.505	13	
04A		0.516	14	
05A		0.129	15	
06A		0.004	16	
07A		0.143	100002	
08A		0.146	03	
09A		0.178	04	
10A		0.167	05	
11A		0.153	06	
12A		0.254	100516	
13A		0.249	517	
14A		0.049	518	
15A		0.210	519	

Notes: Code 166 Lot 09150 Exp 07/010

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564Work Order: 0908457A/BDate: 8/24/09Method: Read K66Analyst: A. ToikamaWavelength: 537Prep. Notes: cont. from page 16

Standard ID	Concentration	ABS	
1858-17 0.1	0.1 μ g/mL	0.011	
0.5	0.5 μ g/mL	0.042	
2	2.0 μ g/mL	0.162	
10	10 μ g/mL	0.774	
20	20 μ g/mL	1.484	
			$r = 0.999886$ $m = 0.074191109$ $b = 0.01087392$
			↓ see page 16 4/9/14/09

Fraction	Dilution	ABS	Sample ID	Sample Volume
K6A	1.00	0.180	100520	5.0 to 5 mL
17A		0.004	521	
18A		0.045	850	
19A		0.044	851	
20A		0.063	852	
01AA	0.1030 1.00	0.030	8/24/09 NA 99911	
02AA	1.00 0.474 8/24/09	0.474	99912	
BK	1.00	0.003	NA	
BK		0.006		
CCV/LCS CCV		0.774		
As 8/26/09				
8/31/09 AT				

Notes: CCV/LCS prepared at 10 μ g/mL

Standard ID: 1858-17

Project: Calibration Solution Rad 166

Analyst: A. Toyama

Preparation Date: 8/24/09

Expiration Date: 8/24/09

Solvent: DI H₂O

Solvent Lot #: NA

Procedure/Comments: Dissolve 5 mg Sodium Nitrite, 97% (Location ER2D) in 250 mL DI H₂O to yield ~~20 µg/L~~ or ~~20 µg/mL~~ ^{9/23/09} From this solution, dilute to ^{8/24/09} make: 13 µg/L or 13 µg/mL

6.5 µg/mL	1.3 µg/mL	0.325 µg/mL	0.065 µg/mL
10 µg/mL	2.0 µg/mL	0.5 µg/mL	0.1 µg/mL

9/3/09 AT

To each of these calibration levels, transfer 0.5 mL to ~~field~~ ^{plastic} vial and add 5 mL of sulphanilamide, cap tightly, stir and wait 5 minutes. Then add 1 mL of NEDA solution, stir and wait 10 minutes. Measure absorbance at 537 nm.

8/24/09
AT

Shipping/ Receiving Documents

**180 Blue Ravine Road, Suite B
Folsom, CA 95630**

**Phone (916) 985-1000 FAX (916) 985-1020
Hours 8:00 A.M. to 6:00 P.M. Pacific**

COMPANY: Environmental Health & Engineering, Inc.
ATTENTION: Mr. Taeko Minegishi
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 0908457A
of pages (Including Cover): 4

9/17/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found discrepancies. In order to expedite analysis and reporting, please review the attached information for accuracy.

Corrections can be faxed to **Ausha Scott at 916-985-1020.**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

In accordance with your company's contract, this account is required to have a PO that is fully executed by both parties which also covers the cost of the workorder before any data can be released. Please ensure that you have given all appropriate information to our Project Manager so that there will be no delay in reporting of the data you are requesting.

The following discrepancies have been observed:

Samples were not received at the recommended temperature (4 ± 2 °C). ATL will proceed with the analysis unless otherwise notified.

Samples were received without documentation regarding collection dates on the Chain of Custody. The sampling dates you have provided by telephone/fax/e-mail will be used to determine the extent of hold time.

Your prompt response is appreciated.

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: AIR TOXICS

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

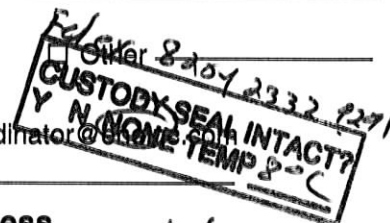
The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA ☒

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
01A	99911	AIR/PASSIVE	SO ₂ NO ₂ HF ANALYSIS	14D 16H 25M
02A	99912			
03A	99913			
04A	99914			
05A	99915			
06A	99916			
07A	100002			14D 22H 18M
08A	100003			
09A	100004			
10A	100005			
11A	100006			
12A	100516			13D 23H 25M
13A	100517			
14A	100518			
15A	100519			
16A	100520			

Special Instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time
☐ Fax results 781-247-4305
☐ RETURN SAMPLES ☒ Electronic transfer - datacoordinator@eh&e.com
☒ Additional report recipient mfragola@eh&e.com



Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 8/20/09
Received by: [Signature] of (company name) ATC Date: 8/22/09
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 4

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: AIR TOXICS

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA ☒

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
17A	100521	AIR PASSIVE	SO ₂ NO ₂ HF ANALYSIS	φ
18A	100850			12 DAYS 11 DAYS
19A	100851			1
20A	100852			
21A	100853			
22A	100854			
23A	100855			
24A	100159			13D 20H 49M
25A	100160			
26A	100161			
27A	100162			
28A	100163			
29A	100164			φ
30A	100606			13D 18H 50M
31A	100607			
32A	100608			

Special Instructions:

☒ Standard turn around time

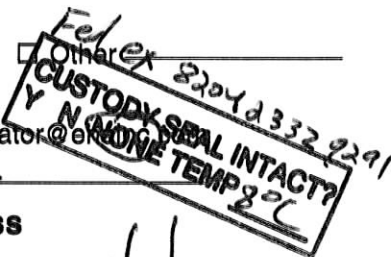
☐ Rush by _____ date/time

☐ Fax results 781-247-4305

☐ RETURN SAMPLES

☒ Additional report recipient

☒ Electronic transfer - datacoordinator@eh&e.com



Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 8/20/09

Received by: AR 0850 of (company name) AHC Date: 8/21/09

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 2 of 4

SAMPLE RECEIPT SUMMARY

WORKORDER 0908457A

Client

Mr. Taeko Minegishi
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Phone

800-825-5343

Fax

781-247-4305

Date Promised: 09/01/09 11:59 pm

Date Completed: 9/16/09

Date Received: 8/21/09

PO#: 16512

Project#: 16512

Sales Rep: TL

Total \$: \$ 900.00

Logged By: MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
01A	99911	ATL Applications	8/18/2009	\$40.00
01AA	99911 Lab Duplicate	ATL Applications	8/18/2009	\$0.00
02A	99912	ATL Applications	8/18/2009	\$40.00
02AA	99912 Lab Duplicate	ATL Applications	8/18/2009	\$0.00
03A	99913	ATL Applications	8/18/2009	\$40.00
04A	99914	ATL Applications	8/18/2009	\$40.00
05A	99915	ATL Applications	8/18/2009	\$40.00
06A	99916	ATL Applications	8/18/2009	\$40.00
07A	100002	ATL Applications	8/19/2009	\$40.00
08A	100003	ATL Applications	8/3/2009	\$40.00
09A	100004	ATL Applications	8/3/2009	\$40.00
10A	100005	ATL Applications	8/3/2009	\$40.00
11A	100006	ATL Applications	8/3/2009	\$40.00
12A	100516	ATL Applications	8/4/2009	\$40.00
13A	100517	ATL Applications	8/4/2009	\$40.00
14A	100518	ATL Applications	8/4/2009	\$40.00
15A	100519	ATL Applications	8/4/2009	\$40.00
16A	100520	ATL Applications	8/4/2009	\$40.00
17A	100521	ATL Applications	8/4/2009	\$40.00
18A	100850	ATL Applications	8/7/2009	\$40.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #61 NO2-Radiello 166

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

SAMPLE RECEIPT SUMMARY Continued

Client

Mr. Taeko Minegishi
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
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Total \$: \$ 900.00

Logged By: MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
19A	100851	ATL Applications	8/7/2009	\$40.00
20A	100852	ATL Applications	8/7/2009	\$40.00
21A	Method Blank	ATL Applications	NA	\$0.00
21B	Method Blank	ATL Applications	NA	\$0.00
22A	CCV	ATL Applications	NA	\$0.00
Misc. Charges eCVP (20) @ \$5.00 each.				\$100.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #61 NO2-Radiello 166

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

Sample Discrepancy Report

Identification

Initiated By: MW Project ID: 13297 PM: BL Date: 8/21/2009 Discrepancy Type: ☐ 1. ☒ 2. ☐ 3.

Workorder(s) affected: 0908457 Sample(s) affected: all

1. Sample Receipt Discrepancies

Narration Not Required:

- 1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.
- 1.2. ☐ No brass cap on canister.
- 1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

- 1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

- 1.5. ☐ COC was not filled out in ink.
- 1.6. ☐ COC improperly relinquished / received.
- 1.7. ☐ Sample tags / can numbers do not match the COC.
- 1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).
- 1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).
- 1.10. ☐ ID-none on the sample Tag/Blank
- 1.11. ☐ Other (describe below).

Describe the Discrepancy:

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

- 2.1. ☐ COC was not received with samples.
- 2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.
- 2.3. ☐ Incorrect sampling media / container for analysis requested.
- 2.4. ☐ Number of samples on the COC does not match the number of samples that were received.
- 2.5. ☐ Samples were received expired.
- 2.6. ☒ Sampling date (time for sulfur) is not documented for ☐ some / ☒ any samples (check one).
- 2.7. ☐ Sample received with amount of H₂O in the Tedlar Bag.
- 2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.
- 2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.
- 2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.
- 2.11. ☐ Environmental Supply Company valves
- 2.12. ☐ Sorbent samples-sampling volume was not provided
- 2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.
- 2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):
 - ☐ Canister failed leak check on two manifolds,
 - ☐ Canister valve was open,
 - ☐ Brass nut was loose/not present.
 - ☐ Sample can be analyzed
 - ☐ Cannot be analyzed
- 2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.
- 2.16. ☐ Canister sample received at >15"Hg (not identified as a Trip/Field Blank).
- 2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).
- 2.18. ☒ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☒ blue ice (check one) was present. A temp. Blank ☐ was / ☒ was not present (check one).
- 2.19. ☐ Other (describe below)

Initials: _____

Date: _____

Notify Receiving: ☐

Notify PM: ☐

Describe the Discrepancy: samples rec'd at 8 C

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

- | | |
|--|--|
| 3.1. <input type="checkbox"/> Tedlar Bag found to be leaking at the time of analysis; sample <input type="checkbox"/> can / <input type="checkbox"/> cannot (check one) be analyzed. | 3.6. <input type="checkbox"/> Sample loss due to instrument malfunction / broken glassware. |
| 3.2. <input type="checkbox"/> Tedlar Bag found to be flat/low volume; sample cannot be analyzed. | 3.7. <input type="checkbox"/> Low/high surrogate recoveries noted in QC/sample(s) for extractable samples. |
| 3.3. <input type="checkbox"/> Sulfur samples received with insufficient time to analyze prior to expiration. | 3.8. <input type="checkbox"/> Reporting Limit was raised. |
| 3.4. <input type="checkbox"/> Canister found to be leaking at the time of analysis. | 3.9. <input type="checkbox"/> Post weight > Pre weight in field/lab Blank for PM10/TSP samples. |
| 3.5. <input type="checkbox"/> VOST tube saturated; bag dilution necessary. | 3.10. <input type="checkbox"/> Other (describe below). |

Initials: _____ Date: _____ Notify Receiving: ☐ Notify PM: ☐

Team Lead Initials: _____ Date: _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification Complete

☒ Section 2 Complete

☐ Section 3

Action:

- ☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: _____ Date: _____

- ☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials: BL Person notified: David Shore

Date: 8/21/2009

- ☐ Waiting for Client Reply

Comments: **Proceed and narrate temperature discrepancy. See table for time of collection.**

☐ Notify Lab Name: _____ Date: _____ Notify Receiving: ☒

- ☐ Additional notifications attached.

Additional Comments:

Other Records



Method : ATL Application #61 NO2-Radiello 166

CAS Number	Compound	Rpt. Limit (ug)
10102-44-0	Nitrogen Dioxide	1.0

DATA REVIEW CHECKLIST

Work Order #:

0 908 457 A

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The final report has the correct reporting list, special units, and header info.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample Discrepancy Report (SDR) is completed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Corrective Action issued - # _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Unusual circumstances have been documented in the notes section below

LUMEN validation report present and initialed

CIRCLE (YES (NO))

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lab Blank, CCV, LCS and DUP met QC criteria
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hold time is met for all samples
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate data qualifier flags are applied
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manual integrations for samples and QC are properly documented
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples analyzed within the project or method specific clock
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Retention times have been verified
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate ICAL(s) included
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At least one result per sample is verified against the target quant sheets/raw data
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Correct amount of sample analyzed (i.e. sample not over-diluted)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs resemble reference spectra
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs between duplicate samples are consistent
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Data for multiple analyses of sample(s) has been evaluated for comparability of results
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special units for all samples in the final report are correctly calculated
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manually entered results checked (i.e. TPH/NMOC)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody scanned correctly
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify sample id's vs. chain of custody
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date MDL(s) performed per instrument(s)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples pressurized w/ appropriate gas (N ₂ or He) <input checked="" type="checkbox"/> Other (i.e. Tedlar bag, cartridge, sorbent)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final pressure consistent with canister size (6L vs. 1L)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify receipt pressures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify canister ID #'s
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MDL date(s) present for all instruments utilized
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Client LUMEN report reviewed for accuracy and completeness

Notes: (to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)

A/R:

Dup. 01A, 02A

M/Q:

A₁/A₂ (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A ₁ : 9/2/09	R:	9/16/09	
A ₂ :	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.

Rev. 02/20/09

Note (2): Management reviewer and reporting reviewer must be separate individuals.